

**UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA**

**JAMES RODGERS and SHERYLL
RODGERS, individually and as Husband
and Wife; and CHRISTOPHER EVANS and
JILL EVANS, individually and as Husband
and Wife,**

Plaintiffs,

v.

**BEEHCRAFT CORPORATION, f/k/a
Hawker Beechcraft Corporation, a Kansas
Corporation; HAWKER BEEHCRAFT
GLOBAL CUSTOMER SUPPORT, LLC,
f/k/a Hawker Beechcraft Services, Inc.,
a Kansas limited liability company,**

Defendants.

Case No. 15-CV-0129-CVE-PJC

OPINION AND ORDER

Defendants Beechcraft Corporation (Beechcraft) and Hawker Beechcraft Global Customer Support, LLC (HBGCS) filed motions (Dkt. ## 52, 56, 57, 60) to exclude the testimony of each of plaintiffs' expert witnesses, and they have also filed a motion (Dkt. # 150) asking the Court to exclude affidavits of plaintiffs' experts that were submitted in response to defendants' motions to exclude expert testimony. These motions were referred to the magistrate judge and a hearing was held on September 7 and 8, 2016, and the magistrate judge has entered reports and recommendations as to each of the pending motions. Dkt. ## 182, 183, 189, 190, 191, 195, 196. Objections to the reports and recommendations have been filed by plaintiffs and defendants, and the Court has reviewed the reports and recommendations, the parties' objections, and any responses to the objections.

I.

On March 16, 2015, plaintiffs James Rodgers and Christopher Evans filed this case alleging a manufacturer's products liability claim against Beechcraft and a negligence claim against Beechcraft and HBGCS. Their spouses, Sheryll Rodgers and Jill Evans, also allege claims of loss of consortium against defendants. James Rodgers and Christopher Evans were passengers on a Beech Premier 390 aircraft, manufactured by Beechcraft in 2008, that was flying from Tulsa, Oklahoma to South Bend, Indiana on March 17, 2013. During the flight, plaintiffs allege that both engines of the plane were inadvertently shut down and the pilot was unable to restart both of the engines due to a defective electrical distribution bus system. Dkt. # 28, at 5-6. The pilot was unable to successfully land the plane and it crashed near the South Bend Airport, and James Rodgers and Christopher Evans were injured in the crash. Plaintiffs allege that the alternate landing gear system failed to deploy properly during the attempted landing and that the alternate landing gear system was defectively designed. Id. at 12.

In June 2016, plaintiffs filed a motion to file a second amended complaint (Dkt. # 93) adding a theory of product defect based on the aircraft flight manual (AFM), and they allege that the AFM contains faulty instructions for restarting the electrical generator following a dual engine shutdown. Id. at 4-5. Defendants opposed plaintiffs' motion to amend on the ground that plaintiffs' motion was untimely. The Court found that plaintiffs had established good cause to amend the complaint outside of the deadline established in the scheduling order for parties to file motions to amend. Dkt. # 128, at 6. However, plaintiffs' motion was filed on the same day as defendants' motion for summary judgment, and the Court considered that there was a legitimate question as to whether the motion to amend was filed in an attempt to avoid summary judgment. Id. at 7. The Court

determined that evidence relating to the AFM would be offered at trial even if the motion to amend were denied, and defendants would not be prejudiced by granting the motion to amend. Plaintiffs were permitted to file a second amended complaint. The Court declined to make a finding that any specific evidence, such as expert testimony, was admissible in support of plaintiffs' AFM defect theory, and plaintiffs were cautioned that "they must show that they have made timely disclosure of the expert opinions and that their experts have been made available for deposition about any opinions concerning the AFM checklists."

Before plaintiffs filed the motion to amend, defendants had filed motions to exclude the expert testimony of plaintiffs' experts. Dkt. ## 52, 56, 57, 60. Plaintiffs responded to the motions, and included a new affidavit from each of their experts as part of their response. Defendants filed a motion to strike the affidavits as improper supplementation of plaintiffs' expert reports. Dkt. # 150. The motions to exclude expert testimony and the motions to strike the affidavits were referred to the magistrate judge for a report and recommendation. The magistrate judge has entered a report and recommendation on each of the motions, and the Court has received an objection to each report and recommendation from plaintiffs and /or defendants. The deadline to file responses to the objections has expired, and the reports and recommendations are ripe for consideration.

II.

Without consent of the parties, the Court may refer any pretrial matter dispositive of a claim to a magistrate judge for a report and recommendation. However, the parties may object to the magistrate judge's recommendation within fourteen days of service of the recommendation. Schrader v. Fred A. Ray, M.D., P.C., 296 F.3d 968, 975 (10th Cir. 2002); Vega v. Suthers, 195 F.3d 573, 579 (10th Cir. 1999). The Court "shall make a de novo determination of those portions of the

report or specified proposed findings or recommendations to which objection is made.” 28 U.S.C. § 636(b)(1). The Court may accept, reject, or modify the report and recommendation of the magistrate judge in whole or in part. FED. R. CIV. P. 72(b).

III.

A.

Defendants have filed motions challenging the qualifications of plaintiffs’ expert witnesses and the reliability of the methodology used by those experts to reach their opinions. In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), the Supreme Court held that district courts must initially assess the admissibility of “scientific” expert testimony under Fed. R. Evid. 702. The Supreme Court extended the gatekeeper role of federal district courts to all expert testimony in Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999). In Bitler v. A.O. Smith Corp., 400 F.3d 1227 (10th Cir. 2005), the Tenth Circuit discussed the role of district courts in considering a Daubert challenge to the admissibility of expert testimony. First, the court should make a preliminary finding that the expert is qualified to testify. Id. at 1232-33. Next, the proponent of expert testimony must establish that the expert used reliable methods to reach his/her conclusion and that the expert’s opinion is based on a reliable factual basis. Id. at 1233. The Tenth Circuit cited four factors that district courts should apply to make a reliability determination:

(1) whether a theory has been or can be tested or falsified; (2) whether the theory or technique has been subject to peer review and publication; (3) whether there are known or potential rates of error with regard to specific techniques; and (4) whether the theory or approach has “general acceptance.”

Id. at 1233 (citing Daubert, 509 U.S. at 593-94). The Tenth Circuit was clear that “a trial court’s focus generally should not be upon the precise conclusions reached by the expert, but on the methodology employed in reaching those conclusions.” Id. In other cases, the Tenth Circuit has

emphasized that any analytical gap in an expert's methodology can be a sufficient basis to exclude expert testimony under Daubert. Trucks Ins. Exchange v. MagneTek, Inc., 360 F.3d 1206, 1212-13 (10th Cir. 2004); Goebel v. Denver & Rio Grande Western R. Co., 346 F.3d 987, 992 (10th Cir. 2003). Under Daubert, “any step that renders the analysis unreliable . . . renders the expert's testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.” Mitchell v. Gencorp Inc., 165 F.3d 778, 783 (10th Cir. 1999) (citing In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 745 (3d Cir. 1994)).

Defendants also argue that plaintiffs have improperly attempted to supplement their expert disclosures by offering new expert opinions in response to defendants' motion for summary judgment (Dkt. # 94), and defendants argue that the new opinions were not timely disclosed under Fed. R. Civ. P. 26. The Federal Rules of Civil Procedure require an expert witness to prepare a report containing a “complete statement of all opinions to be expressed and the basis and reasons for them” Fed. R. Civ. P. 26(a)(2)(B). A party's failure to disclose the identity of an expert witness or provide a timely expert report requires the court to automatically exclude expert testimony unless the violation of Rule 26(a)(2) was justified or was harmless under the circumstances. Fed. R. Civ. P. 37(c)(1); Jacobsen v. Deseret Book Co., 287 F.3d 936, 951-52 (10th Cir. 2002). A court may exclude specific opinions or bases for the expert's opinions that were not fairly disclosed in the expert's report. Keach v. United States Trust Co., 419 F.3d 626, 641 (7th Cir. 2005). The Tenth Circuit has identified four factors to determine whether a violation of Rule 26(a)(2) was harmless or justified: (1) the prejudice or surprise to the party against whom the testimony is offered; (2) the ability of the party to cure the prejudice; (3) the extent to which introducing such testimony would disrupt the trial; and (4) the moving party's bad faith or

willfulness. Woodworker's Supply, Inc., v. Principal Mut. Life Ins. Co., 170 F.3d 985, 993 (10th Cir. 1999).

Under Rule 26 (a)(2)(D)(ii), any expert evidence that “is intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C)” must be exchanged within 30 days after the opposing party’s disclosure. In contrast to rebuttal expert evidence, a party is required to supplement expert disclosures under Rule 26(e) “in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect” Fed. R. Civ. P. 26(e)(1)(A). A party must supplement its expert disclosures “by the time the party’s pretrial disclosures under Rule 26(a)(3) are due.”

Under Rule 26(e), a party is under a duty to supplement “in a timely manner if the party learns that in some material respect the disclosure is incomplete or incorrect and if the additional and corrective information has not otherwise been made known to the other parties during the discovery process or in writing” Rule 26(e)(1) does not permit parties to produce “supplemental reports whenever they believe such reports would be ‘desirable’ or ‘necessary’ to their case,” and supplemental reports are permitted “(1) upon court order; (2) when the party learns that the earlier information is inaccurate or incomplete; or (3) when answers to discovery requests are inaccurate or incomplete.” Minebea Co., Ltd. v. Papst, 231 F.R.D. 3, 6 (D.D.C. 2005). Although parties are permitted to supplement expert disclosures, Rule 26(e) “does not give license to sandbag one’s opponent with claims and issues which should have been included in the expert witness’ report.” Leviton Mfg. Co., Inc. v. Nicor, Inc., 2007 WL 1306759 *4 (D.N.M. April 20, 2007) (quoting Beller v. United States, 221 F.R.D. 696, 701 (D.N.M. 2003)). As one court has noted:

A supplemental expert report that states additional opinions or rationales or seeks to “strengthen” or “deepen” opinions expressed in the original expert report exceeds the

bounds of permissible supplementation and is subject to exclusion under Rule 37(c)(1). “To rule otherwise would create a system where preliminary [expert] reports could be followed by supplementary reports and there would be no finality to expert reports, as each side, in order to buttress its case or position, could ‘supplement’ existing reports and modify opinions previously given. This result would be the antithesis of the full expert disclosure requirements stated in Rule 26(a).

Cook v. Rockwell Int’l Corp., 2006 WL 3533049 *87 (D. Colo. Dec. 7, 2006) (citations omitted).

Permitting late supplementation of expert reports also has the effect of denying the opposing party the opportunity to file a meaningful Daubert motion as to questionable expert testimony. See Miller ex rel. S.M. v. Bd. of Educ. of Albuquerque Public Schools, 455 F. Supp. 2d 1286, 1299 (D.N.M. 2006).

B.

The magistrate judge recommends that defendants’ motion to exclude the testimony of plaintiff’s electrical expert, John Bloomfield, be granted in part and denied in part. Dkt. # 195. Plaintiffs and defendants object to the magistrate judge’s report and recommendation. Dkt. ## 197, 200. The magistrate judge also recommends that the Court exclude the affidavit submitted by Bloomfield, because his affidavit was intended to rebut the opinions of defendant’s experts but it was not timely submitted to defendants pursuant to Rule 26(a)(2)(D)(ii). Dkt. # 182. Plaintiffs assert that Bloomfield’s affidavit was simply a “consolidation” of the opinions stated in his original report, and they object to the magistrate judge’s recommendation to exclude the affidavit submitted in response to defendants’ motion to exclude Bloomfield’s testimony. Dkt. # 186, at 9.

Bloomfield’s original report was provided to defendants on February 1, 2016. He has a degree in industrial and systems engineering from the Georgia Institute of Technology, and he states that he is an expert in “avionics, aircraft electrical systems, aircraft electrical distribution, avionics

integration,” and “all electro/mechanical systems and hydro/mechanical systems and sub-systems.” Dkt. # 52-6, at 4, 57. Bloomfield opined that the “Premier 390, N26DK aircraft suffered a *manufacturing defect that was present from the time of manufacture that caused widespread electrical system failures that ultimately caused the crash.*” Id. at 5-6 (emphasis in original). In the alternative, he stated that, “although highly unlikely, if this defect was induced at the time of compliance with [Service Bulletin] SB-24-3868, it was because the kit used for compliance (390-3622) was defective in failing to properly instruct on installation procedures;” thus, Beechcraft’s conduct rendered the aircraft defective. Id. at 6. Bloomfield examined the aircraft wreckage on February 24, 2015 and he participated in a more detailed inspection of the electrical components harvested from the aircraft two days later. Id. at 13. During these examinations, he found a loose screw that connected a feed wire to an electrical bus on the pilot’s side of the aircraft, and he claimed that the screw had been loose since the original assembly of the aircraft. Id. at 21. Bloomfield explained that a “wiring improvement” was made to the aircraft pursuant to Service Bulletin 24-3868, but the loose screw was not touched as part of the repair. Id. at 22. He claims that a component inspection of screws that connect wires and electrical bus bars to circuit breakers consistently showed that the screws were not torqued to the correct tightness, and he opines that this is evidence of poor assembly practices and quality control. Id. at 32. According to Bloomfield, all electrical services that depended on power coming from the feeder wire attached to the loose electrical connection would become unreliable, and an intermittent electrical connection would cause many components of the aircraft to stop working. Id. at 33. He also opined that a loose electrical connection would cause voltage spikes that can damage the aircraft’s systems. Id. at 34-35. Bloomfield believes that the aircraft’s battery switch was in the “On” position, rather than the

“Standby” position, when the aircraft crashed. Id. at 39. In addition to the aircraft’s electrical system, Bloomfield offered an opinion that the alternate gear extension system of the aircraft was defectively designed, because the force required to drop the landing gear into place greatly exceeded the design specifications. Id. at 45. In addition, the indicators showing that the landing gear is locked do not function when there is an electrical failure, and a pilot could not determine if the landing gear were locked without electrical power. Id. at 46.

In his deposition, Bloomfield admitted that he incorrectly opined in his report that the feeder wire connected to the “loose” screw was not touched when the aircraft was serviced pursuant to SB 24-3868, and the feeder wire actually had to be removed to accomplish the repair. Dkt. # 52-9, at 6-7. He clarified that he believed that screw became loose during the repair and not at the time the aircraft originally left control of the manufacturer. Id. at 12-13. He explained that the he did not have any actual evidence that the aircraft’s electrical system suffered from voltage spikes, but he was certain that the loose connection he found would have caused voltage spikes. Id. at 10. Bloomfield stated that it was not possible from examining the aircraft’s surge protectors if the aircraft suffered from voltage spikes, and he did not offer any opinion as to the adequacy of the aircraft’s voltage suppression system. Id. at 11.

In response to defendants’ motion for summary judgment and Daubert motions, Bloomfield prepared an affidavit re-stating many of the opinions contained in his original report, but he clarified that he would not testify that a loose electrical connection existed since the date the plane was manufactured. Dkt. # 116-1, at 13. However, he stated a new opinion concerning the adequacy of the aircraft’s voltage suppressors to contain any voltage spikes caused by the allegedly loose electrical connection, and he expanded on his opinion that the instruction manual provided by

Beechcraft for installation of a repair kit was defective. Id. at 8, 16. As to the instruction manual issue, Bloomfield opined that the instructions failed to “adequately describe ‘the order and method of removing and replacing’ the service wire to the pilot’s essential bus,” as required by 14 C.F.R. app. G23.3(b)(3). Id. at 15-16. Bloomfield also rebutted arguments asserted by defendants in their Daubert motion, and he attached 96 pages of evidentiary materials to his affidavit in an attempt to bolster his opinions.

The magistrate judge recommended that the Court exclude Bloomfield’s affidavit as untimely rebuttal, and he states that the evidentiary materials attached to the affidavit could have been submitted with Bloomfield’s original report. Dkt. # 182, at 10-11. Plaintiffs object to the report and recommendation and argue that the affidavit simply rephrased and consolidated opinions stated in Bloomfield’s expert report and deposition testimony.¹ Dkt. # 186, at 19. To the extent that the affidavit contains any new opinions, plaintiffs claim that the affidavit is appropriate supplementation to clarify any incomplete opinions stated in Bloomfield’s original report. Id. Defendants have responded to plaintiffs’ objection and argue that Bloomfield’s affidavit states new opinions that should have been disclosed in his original report, and plaintiffs have failed to provide any justification for the untimely disclosure of these new opinions. Dkt. # 188, at 7-8.

The Court has reviewed Bloomfield’s expert report, deposition testimony, and affidavit, and finds that the affidavit (Dkt. # 116-1) should be excluded. To the extent that the affidavit simply

¹ Plaintiffs claim that “[d]efendants clearly did not understand the technical aspects” of Bloomfield’s expert report and that it was necessary for Bloomfield to state his opinions “in a less complex and more easily understood manner” in responding to defendants’ Daubert motion. Dkt. # 186, at 13. Plaintiffs may disagree with defendants’ characterization of Bloomfield’s opinions, but there is no basis to support plaintiffs’ argument that defendants did not understand Bloomfield’s expert report.

restates Bloomfield's opinions, the affidavit is essentially irrelevant and the Court will review Bloomfield's expert report and deposition testimony in ruling on defendants' Daubert motion. However, Bloomfield's affidavit goes beyond simply re-packaging his original report and he clearly states a new opinion as to the sufficiency of the aircraft's voltage suppression system. In addition, he expands on his opinion as to the adequacy of the instructions for installation of a repair kit. He makes no attempt in his affidavit to show that he has learned of new evidence since the drafting of his original report that would render his original report incomplete or inaccurate. A plain reading of Bloomfield's affidavit is that he is seeking to rebut arguments made in defendants' Daubert motion, and he does not claim to be correcting any inaccuracy or omission in his original report. Under Fed. R. Civ. P. 26(2)(D)(ii), a rebuttal opinion must be provided within 30 days of the other party's disclosure. Bloomfield attached a supplemental report of defendants' expert Robert Winn, Ph. D, to the affidavit, which supplemental report was provided to plaintiffs on May 6, 2016. Dkt. # 116-1. At the latest, Bloomfield's rebuttal report would have been due no later than June 5, 2016, and the disclosure of Bloomfield's affidavit in July 2016 was untimely. The Court finds that Bloomfield's affidavit was not appropriate supplementation, and the Court will not consider the affidavit in ruling on defendants' motion to exclude Bloomfield's testimony.

Defendants have raised numerous objections to the admissibility of Bloomfield's testimony, and these objections can be broken down into two broad categories. First, defendants argue that Bloomfield made factual errors in his report and deposition testimony, and he should be precluded from offering factually inaccurate testimony. Dkt. # 52, at 11-14. Second, defendants argue that Bloomfield used an unreliable methodology to reach his opinions, and the Court should exercise its gatekeeper function to exclude scientifically unreliable expert testimony. The magistrate judge

recommended that defendants' motion to exclude Bloomfield's testimony be granted in part and denied in part, and both parties have filed objections to the report and recommendation.

The Court will initially consider defendants' challenges to alleged factual inaccuracies in Bloomfield's expert report. Defendants have identified five alleged errors in Bloomfield's expert report:

1. Bloomfield incorrectly opined that the loose electrical connection that allegedly caused numerous electrical systems to fail existed since the time the aircraft left the control of the manufacturer.
2. In light of the first error, Bloomfield acknowledged that many of the 18 electrical components allegedly damaged by voltage spikes could not have been damaged due to the loose electrical connection.
3. Bloomfield incorrectly testified in his deposition that the cockpit voice recorder was connected to the pilot's essential bus, and he acknowledged that the Cockpit Voice Recorder (CVR) is actually connected to the co-pilot's essential bus.
4. Defendants assert that Bloomfield incorrectly stated that the battery switch was in the ON position at the time of the crash, but he incorrectly assumed that he was reviewing photographs taken at the time of the crash.
5. Bloomfield opined that the force necessary to deploy the alternate landing gear was 200 to 300 percent greater than required by Beechcraft's specifications, but he based this opinion on an incorrect pull force of 25 pounds.

Plaintiffs concede that Bloomfield was mistaken as to points one and two and they will not offer his testimony on these issues, but they argue the remaining alleged errors go to weight, rather than the admissibility, of Bloomfield's testimony. Dkt. # 116, at 12-13. The magistrate judge found that plaintiff's motion was moot as to points one and two, and he agreed that the remaining alleged errors went to the weight of Bloomfield's testimony. None of the parties has objected to this aspect of the magistrate judge's ruling, and the Court finds that this portion of the magistrate judge's report and recommendation should be accepted.

Defendants have raised numerous objections to Bloomfield's testimony based on his methodology and alleged gaps in his data, and they argue that he should be prohibited from testifying due to the unreliable basis for his testimony. The first issue raised by defendants is Bloomfield's proposed testimony that a loose electrical connection caused electrical systems to fail and caused voltage spikes that resulted in an intermittent electrical supply. The magistrate judge recommended that Bloomfield be prohibited from testifying on these points, because he performed no testing or calculations to support his opinions. Dkt. # 195, at 11-15. Plaintiff responds that testing or calculations were unnecessary because Bloomfield's proposed testimony is based on established scientific principles. Dkt. # 197, at 5-6. Even assuming that plaintiff is correct, these general scientific principles were described only in Bloomfield's now-excluded affidavit, and there is no explanation of any general scientific principles in Bloomfield's expert report. During his deposition, Bloomfield acknowledged that he did not conduct any testing on the allegedly damaged electrical components and he admitted he did not have any evidence to support his theory that voltage spikes occurred. Dkt. # 52-9, at 9-10. Plaintiffs argue that there is circumstantial evidence supporting Bloomfield's opinions on these issues, because two passengers at different times observed electrical malfunctions. Dkt. # 197, at 6. However, Bloomfield does not mention this evidence in his report or deposition testimony, and there is no basis for the Court to find that Bloomfield considered this evidence in reaching his opinions. The Court accepts the magistrate judge's recommendation that Bloomfield's testimony that the loose electrical connection caused any electrical systems to fail or that voltage spikes occurred should be excluded.

Defendants argue that Bloomfield should be prohibited from offering any testimony about the design of the alternate landing gear system, because Bloomfield has no professional experience

designing an alternate landing gear system and he did not conduct any testing as to his proposed alternate design.² Dkt. # 52, at 19, 20. It is undisputed that Bloomfield has no professional experience designing an alternate landing gear system, because he admitted to this fact in his deposition. Dkt. # 52-9, at 3. He opined that the alternate landing gear was defective, because in situations where the subject aircraft lacked electrical power there would be no way for the pilot to determine if the alternate landing gear is locked. Dkt. # 52-6, at 46-48. He proposed a method to remedy this alleged defect, but his report does not state whether his alternate design is actually used in the industry or whether it would be feasible on the subject aircraft. Id. at 49. Finally, he opined that the alternate landing gear was defective because the design allowed debris to accumulate in the wheel well, but he does not state whether this actually occurred in this case. Id. at 50. The magistrate judge recommended that Bloomfield's opinion on these issues be excluded, because Bloomfield lacks the relevant experience in aircraft design and there is no evidence that accumulation of debris in the wheel well contributed to the crash. Plaintiffs argue that design experience is not a prerequisite for qualification of an expert, and they claim that Bloomfield has sufficient experience as a pilot and with the mechanical systems of an aircraft to allow him to testify about alleged defects with the alternate landing system. Dkt. # 197, at 7-9. The Court has reviewed Bloomfield's report and he opines that debris could be caught in the wheel well, but he does not actually state that this occurred in this case. He should not be permitted to testify about a

² Defendants also object to the admissibility of Bloomfield's testimony as to Sommer and Bloomfield's testing of the alternate landing gear on exemplar aircraft, and they argue that Sommer and Bloomfield failed to follow the proper protocol for deploying the alternate landing gear. Dkt. # 200, at 4-7. This issue is more thoroughly dealt with by the magistrate judge and the parties in discussing Sommer's proposed testimony, and the Court will not separately rule on this issue as to Bloomfield.

hypothetical cause that allegedly added to the pull force necessary to lock the alternate landing gear in place unless this is supported by evidence.³ As to Bloomfield's proposal for an alternate design, he has no experience designing an alternate landing gear system and he has not tested his proposed alternate design. The Court accepts the magistrate judge's report and recommendation to exclude Bloomfield's proposed testimony as to defects in the alternate landing gear system.

Plaintiffs also object to the magistrate judge's recommendation that Bloomfield's testimony as to deficiencies with the AFM as to use of the alternate landing gear be excluded. Dkt. # 197, at 11. Plaintiffs claim that Bloomfield can testify about deficiencies in the AFM based on his experience as a pilot. Id. at 11. The magistrate judge noted that Bloomfield is certified to fly a "single-engine, prop-driven aircraft," but he has no experience flying a jet such as the aircraft at issue in the case. Dkt. # 195, at 20. Bloomfield's deposition testimony shows that he disavowed any expertise on "piloting question[s]" and that he was not testifying as a "piloting expert." Dkt. # 52-9, at 26. In his expert report, Bloomfield does not claim to have any expertise in drafting instruction manuals, and he identifies himself as an expert in "electro/mechanical systems and hydro/mechanical systems." Dkt. # 52-6, at 4. The Court finds that Bloomfield lacks the necessary

³ Plaintiffs cite the deposition testimony of Shawn Korr, a Beechcraft employee, who testified that some minimal amount of increase in the pull force necessary to lock the alternate landing gear into place should be expected after the aircraft leaves the control of the manufacturer. Dkt. # 118-8, at 2. However, Korr was clear that this was a minimal amount and he does not directly link this increase in pull force to debris in the wheel well. Id. In any event, Bloomfield does not cite Korr's deposition testimony in his expert report or reference the testimony in his deposition.

qualifications to opine as to the sufficiency of the AFM's instructions concerning the use of the alternate landing gear.⁴

Defendants object to the magistrate judge's recommendation that Bloomfield's testimony concerning the existence of a loose screw and Bloomfield's "washer torque testing" be permitted, because they argue that this testimony will be irrelevant in the light of the exclusion of Bloomfield's testimony that voltage spikes allegedly damaged the aircraft's electrical components. The magistrate judge recommended that Bloomfield be permitted to testify that he observed a loose screw and that screw was loose when the aircraft crashed. Dkt. # 195, at 16. The Court has accepted the magistrate judge's recommendation that Bloomfield be prohibited from testifying that the loose screw caused voltage spikes that damaged the aircraft's electrical components and caused intermittent power supply, but the Court cannot determine at this time if the existence of a loose screw is entirely irrelevant. Unlike Bloomfield's other opinions, he conducted testing on this issue and has an adequate factual basis to testify that he discovered a loose screw. The Court declines at this time to exclude Bloomfield's testimony on the existence of a loose screw, but plaintiffs are advised that they will be required to show that this testimony is relevant in light of the exclusion of Bloomfield's testimony concerning voltage spikes and damage to electrical components.

C.

Defendants ask the Court to exclude the testimony of Donald and Colin Sommer on the grounds that the proposed expert testimony is unreliable and that Donald and Colin Sommer lack the necessary qualifications to testify about certain topics. Dkt. # 57. The motion was referred to

⁴ The magistrate judge also recommended that Bloomfield's testimony on this issue would be cumulative, because plaintiffs have at least two other experts more qualified to testify about the AFM. Dkt # 195, at 20.

the magistrate judge for a report and recommendation and, following a hearing, the magistrate judge recommended that the Court grant in part and deny in part defendants' motion. Dkt. # 196. Plaintiffs and defendants object to the report and recommendation. Dkt. ## 198, 199. The Court will also consider the magistrate judge's report and recommendation concerning Donald Sommer's affidavit (Dkt. # 117-6) attached to plaintiffs' response to defendants' motion to exclude the testimony of Donald and Colin Sommer, because defendants argue that the affidavit was not proper supplementation of expert disclosures under Rule 26.. Plaintiffs state that they have no intention of calling Colin Sommer as a witness, and the Court accepts the magistrate judge's recommendation that all objections to Colin Sommer's proposed testimony are moot.⁵ Dkt. # 196, at 3.

Sommer graduated from the University of Michigan with a bachelor of science in engineering, and he performed graduate work in instrumentation and testing systems. Dkt. # 57-6, at 36. Sommer holds certification from the Federal Aviation Administration (FAA) as an airline transport pilot, commercial pilot, flight instructor, ground inspector, and mechanic. Id. He is an experienced pilot with over 16,000 hours of flight time. Id. at 37. Sommer is the president and owner of Aeroscope, Inc. and, inter alia, Aeroscope performs accident reconstruction and analysis following an airplane crash. Id. at 36. Sommer is a member of the Aircraft Owners and Pilots Association, the International Society of Air Safety Investigators, The Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects, and the National Association of Flight Instructors. Id. at 37. Sommer's curriculum vitae states that he specializes in aircraft accident reconstruction, in-flight and stationery instrumentation systems and

⁵ All further references on this Opinion and Order to "Sommer" will be to Donald Sommer unless otherwise specified.

testing, mechanical and hydraulic systems, aircraft performance, failure analysis, interpretation of FAA regulations, pilot reactions, and pilot training.

Sommer examined the aircraft wreckage, listened to the CVR, and examined witness statements, and he opined that multiple aircraft system failures caused the crash and that pilot error was not a contributing factor. Dkt. # 117-9, at 30. Sommer concluded that the “shutdown of both engines was a relatively easy problem to solve had the other systems involved been in proper operating condition.” Id. Sommer faulted the electrical system of the aircraft and noted that a loose wire connected to the essential bus had been “arcing, overheating, and interrupting power service to critical aircraft systems.” Id. He opined that a design defect in the alternate landing gear system prevented the alternate landing gear from deploying during Caves’ attempted landing of the aircraft, and he states that Beechcraft failed to warn pilots of the “extremely large pull forces” required to operate the alternate landing gear system. Id. at 31. He claims that Beechcraft and HBGCS were negligent for failing to diagnose and repair alleged defects in the aircraft’s electrical system and alternate land gear when the aircraft was in their control, and he further opined that both defects existed from the time the aircraft was manufactured. Id. He also states a legal opinion that BHGCS was acting as the agent of Beechcraft when it performed repairs on the aircraft. Id.

Sommer’s expert report was provided to defendants on January 31, 2016. Defendants filed a motion to exclude Sommer’s testimony, and an affidavit from Sommer (Dkt. # 117-6) was attached to plaintiffs’ response to defendants’ motion. The affidavit explains the operation of the main landing gear and alternate landing gear in significantly more detail than Sommer’s original expert report, and he states that he is qualified to offer an opinion about the design of an alternate landing gear system based on his education and experience. Dkt. # 117-6, at 3-4. He also claims that he is

qualified to offer an expert opinion about the AFM as it applies to the operation of the alternate landing gear. Id. at 4. In his original report, Sommer cites the Maintenance Manual for the subject aircraft to establish the distance the release mechanism for the alternate landing gear needs to be pulled to be locked into place, but he does not discuss any alleged inadequacy in the AFM.⁶ Dkt. # 117-9, at 19. Sommer's affidavit explains the testing he performed on the alternate landing gear of exemplar aircraft, and this aspect of Sommer's affidavit summarizes testing that was described in his original expert report. Dkt. # 117-6, at 6; Dkt. # 117-9, at 28-29. Sommer also describes new testing that he conducted on the pull mechanism of the alternate landing gear, and he restates his opinion that Caves acted as a reasonably prudent pilot under the circumstances. Dkt. # 117-6, at 7-8.

The Court has reviewed Sommer's original expert report and affidavit, and the Court independently concludes that the affidavit should be disregarded when the Court in determining the admissibility of Sommer's testimony. There is no basis for the Court to treat the affidavit as supplemental, because it either seeks to reinforce previously stated opinions based on evidence that was available to Sommer when he drafted his original report, or attempts to rebut criticisms of his methodology with new testing or analysis. Under Rule 26, Sommer's original report should have been his complete report and he should have promptly supplemented his report if he determined that his report was incomplete or inaccurate. Dahlberg v. MCT Transp., LLC, 571 F. App'x 641, 645 (10th Cir. July 8, 2014) (Rule 26 requires that an expert's initial report fully disclose the expert's opinions and the bases for those opinions, and expert evidence that is not timely disclosed should

⁶ The Maintenance Manual is a separate document from the AFM, and plaintiffs state that the Maintenance Manual is much longer and that it "cannot be kept on the flight deck or consulted by a busy pilot in an emergency." Dkt. # 117, at 10.

be excluded unless the untimely disclosure was substantially justified or harmless).⁷ Instead, Sommer drafted an affidavit more fully describing the bases for his opinions only after defendants filed a motion to exclude his testimony, and it apparent that he is attempting to refute arguments made by defendants in their Daubert motion. This is not an appropriate reason for a party to supplement expert disclosures. Asbury v. MNT, Inc., 2014 WL 6914235, *2 (D.N.M. Apr. 22, 2014). Plaintiffs argue that Sommer's affidavit should not be excluded merely because certain opinions were phrased "phrased differently." Dkt. # 186, at 22. However, Sommer's affidavit goes well beyond rephrasing his original opinions; the affidavit provides new data and analysis in support of his opinions that should have been disclosed in his original expert report. To extent that Sommer does rephrase his opinions, the affidavit is unhelpful to the Court in reviewing the admissibility of Sommer's report, and the Court will consider his presumably complete original report in ruling on defendants' Daubert motion. The Court accepts the magistrate judge's report and recommendation that Sommer's affidavit was not proper supplementation under Rule 26. Dkt. # 182, at 13-15.

The Court will now consider the magistrate judge's recommendations as to the admissibility of the opinions stated in Sommer's expert report.⁸ The magistrate judge recommended that the Court exclude Sommer's opinion that the alternate landing gear was defectively designed, but he recommended that Sommer be permitted to testify as to an opinion disclosed in his deposition that the AFM instructions concerning the use of the alternate landing gear were inadequate. Dkt. # 196,

⁷ Unpublished decisions are not precedential, but may be cited for their persuasive value. See Fed. R. App. 32.1; 10th Cir. R. 32.1.

⁸ Defendants asked the Court to prevent Sommer from offering legal opinions and plaintiffs failed to respond this argument. The magistrate judge recommended that Sommer be precluded from offering a legal opinion and no objection has been made to this recommendation, and the Court accepts this recommendation. Dkt. # 196, at. 13.

at 6-7. Plaintiffs object to the magistrate judge's recommendation that Sommer be prohibited from testifying that the alternate landing gear system was defectively designed. Dkt. # 198, at 4-6. Plaintiffs ask the Court to consider substantive products liability law, and they argue that Sommer should be permitted to testify that an ordinary pilot would find the alternate landing gear system unreasonably dangerous due to the pull force required. Id. at 4-5. Plaintiffs also argue that Sommer has knowledge of basic engineering principles, and they claim that he is qualified to offer an opinion about design even if he has not personally designed an alternate landing gear system. Id. at 6. The Court agrees with the magistrate judge that Sommer lacks the necessary qualifications to testify about the design of the alternate landing gear. Sommer does not design aircraft or aircraft components as part of his profession, and his consulting work is almost entirely related to offering litigation opinions in support of plaintiffs. Dkt. # 57-7, at 3-4 (Sommer's consulting work is between 90 to 90 percent litigation-related, and of that amount he testifies on behalf of plaintiffs in 95 percent of cases). Sommer has not designed an aircraft or an alternate landing gear system. Id. at 5-6. He considers himself to be "very knowledgeable" about aircraft design, but the mere fact that Sommer believes that he is knowledgeable about a topic does not qualify him to offer expert testimony on aircraft design. Id. at 7. Plaintiffs have not shown that Sommer has the necessary experience to testify about aircraft design. Plaintiffs argue that Sommer has a general knowledge of engineering principles, but there is no evidence in his report that he attempted to apply those principles in this case. Sommer simply conducted testing to establish the pull force necessary to lock the alternate landing gear in exemplar aircraft, but he did not conduct any analysis to identify a specific design defect in the alternate landing gear in the subject aircraft, and there is no analysis in his report that would support the existence of a design defect.

Defendants object to the magistrate judge's recommendation that Sommer be permitted to testify about the adequacy of the AFM instructions. There is no dispute that Sommer is an experienced pilot, but defendants argue that Sommer lacks any experience designing alternate landing gear or preparing a flight manual. The Court finds that Sommer should be permitted to offer an opinion concerning the AFM, because this was disclosed during his deposition and defendants had an opportunity to examine Sommer about this issue. However, the scope of testimony permitted at trial is limited to only what was disclosed during his deposition, and he may not expand upon the opinion or his basis for that opinion if he testifies at trial.

Defendants object to the magistrate judge's recommendation that Sommer be permitted to testify as to the results of his pull force testing on the alternate landing gear of exemplar aircraft. In his report, Sommer states that he tested the pull force necessary to deploy the alternate landing gear on three exemplar aircraft, and Sommer reports that substantially more force was required to lock the alternate landing gear into place than was called for in the Maintenance Manual. Dkt. # 117-9, at 28. He states that he tested the alternate landing gear using guidelines established by the International Civil Aviation Organization. Id. at 29. Sommer further states that the testing procedures were consistent with the United States Air Force Guide to Mishap Investigation, the United States Navy Handbook for Aircraft Accident Investigation, The National Transportation Safety Board (NTSB) Major Investigation Manual, the Transport Safety Board of Canada Investigations Manual, and the University of Southern California Manual of Aircraft Accident Investigation. Id. at 29-30. Defendants argue that the only reliable testing method to measure the pull force needed to deploy the alternate landing gear is contained in the Maintenance Manual, and they claim that Sommer's opinion concerning the pull force should be excluded because he failed

to follow the proper methodology. Dkt. # 57, at 20. In addition, defendants have identified irregularities in Sommer's testing procedure, such as pulling the handle to the side or jerking the handle, and they argue that these departures from the accepted testing procedure render Sommer's opinion concerning the pull force unreliable. The Court agrees with the magistrate judge that the objections raised by defendants do not require the Court to exclude Sommer's testimony as to his pull force testing. Defendants' objections to Sommer's testing on exemplar aircraft go to the weight of his testimony, rather than his admissibility, because it appears that Sommer used a methodology for testing the pull force needed to deploy the alternate landing gear that is accepted in the industry. Defendants argue that the only reliable testing methodology is contained in the Maintenance Manual, but this issue is disputed and the Court cannot resolve this dispute based on the materials presented by the parties. Defendants may cross-examine Sommer about alleged irregularities with his testing of exemplar aircraft, but he should be permitted to testify about pull force testing conducted on exemplar aircraft.⁹

Plaintiffs object to the magistrate judge's recommendation that Sommer's opinions concerning Caves' performance as a pilot be excluded. Dkt. # 198, at 7. Sommer opined that Caves was "trained, qualified, experienced and capable of performing the subject mission" and that pilot error was not a cause of the accident. Dkt. # 117-9, at 30. Plaintiffs argue that Caves had the necessary licensing and training to fly the subject aircraft and Sommer is qualified based on his experience as a pilot to testify as to Caves' training. Dkt. # 198, at 9. Plaintiffs' argument fails to

⁹ The Court's analysis of the admissibility of Sommer's testimony concerning the pull force testing also applies to defendants' arguments to exclude Bloomfield's testimony on this issue. However, plaintiffs are advised that they will not be permitted to offer cumulative testimony on the pull force testing, and plaintiffs may choose whether they want Bloomfield or Sommer to give expert testimony on this issue.

take into account the full scope of Sommer's opinions, because Sommer's opinions went well beyond the adequacy of Caves' training. Sommer did opine that Caves had the required training and licensing and this would be within the scope of Sommer's expertise. However, he further opined that Caves took "all the steps to be expected by a prudent and reasonable pilot to ensure that the subject aircraft was mechanically sound and airworthy prior to departure." Dkt. # 117-9, at 30. There are no facts stated in Sommer's expert report concerning Caves' pre-flight procedure before the aircraft took off on the day of the accident, and there is no basis for Sommer's opinion that Caves took all necessary steps to ensure that the aircraft was mechanically sound. In addition, Sommer opines that accident was caused by a series of system failures and he rules out pilot error as a cause of the accident. Id. There was evidence available to Sommer that Caves allowed a non-pilot to operate the aircraft and that Caves had problems in his training with "switchology" and following checklists. Dkt. # 57-7, at 14. The problem is not simply that there is evidence that conflicts with Sommer's opinion, because this could go only to the weight of Sommer's opinion. Instead, Sommer's report entirely ignores this evidence, and it appears from Sommer's deposition that he conducted a minimal investigation into Caves' training and simply disregarded evidence concerning inadequate training and pilot error. Sommer admits that he conducted no investigation into whether Caves had been trained to use the alternate landing gear, and he acknowledges that Caves was responsible for allowing a passenger to improperly manipulate the aircraft's controls. Id. at 15. Sommer should be permitted to testify as to any certifications or licenses held by Caves and the requirements for obtaining such licenses or certifications, but he may not testify that Caves acted "reasonably or prudently" before or during the flight.

Plaintiffs object to the magistrate judge's recommendation that Sommer be prohibited from testifying contrary to certain undisputed facts. Dkt. # 198, at 10. Defendants asked the Court to prevent Sommer from testifying in contradiction to the following undisputed facts:

(1) that "the weather was checked and weather was not a causal factor to the crash;" (2) "pulling back of both power levers behind the gate resulted in a dual engine shutdown on the accident flight;" (3) the right wing was damaged on the landing attempt during the second go-round; and (4) the pilot lost aerodynamic control on the attempted take-off and could not recover.

Dkt. # 196, at 13. Plaintiffs did not address this issue in their response to defendants' motion to exclude Sommer's testimony, and the magistrate judge recommended that the Court grant defendants' request due to plaintiff's lack of objection. See Dkt. # 117. Although plaintiffs now challenge defendants' arguments concerning Sommer's testimony about undisputed facts, plaintiffs' arguments should have been raised in their response to defendants' motion to exclude Sommer's testimony and the arguments were not presented to the magistrate judge. "[C]ourts are not required to reward a lack of diligence by reviewing arguments not seasonably raised before the magistrate." Thomas American Stone & Bldg., Inc. v. White, 142 B.R. 449 (D. Utah 1992) (citing Paterson-Leitch Co. Inc. v. Massachusetts Mun. Wholesale Elec. Co., 840 F.2d 985, 990-91 (1st Cir. 1988)); see also AG Equipment Co. v. AIG Life Ins. Co., Inc., 2009 WL 137479 (N.D. Okla. Jan. 20, 2009) (declining to consider objections to a ruling of the magistrate judge when the arguments were not initially presented to the magistrate judge). Plaintiffs object to the magistrate judge's recommendation but they make no attempt to show that this issue was contested before the magistrate judge, and the Court declines to consider arguments raised for the first time in an objection to a report and recommendation.

D.

Defendants filed a motion (Dkt. # 56) seeking to exclude the testimony of Frank Graham in its entirety, and the motion was referred to the magistrate judge for a report and recommendation. The magistrate judge recommended that defendants' motion be granted in part and denied in part, but his recommendation that Graham be permitted to testify on some issues is conditioned on plaintiffs' compliance with certain conditions necessary to cure Graham's failure to fully disclose the data underlying his opinions. Dkt. # 190. Plaintiffs have filed an objection (Dkt. # 193) to the report and recommendation, and defendants have not filed an objection or a response to plaintiffs' objection. Defendants also ask the Court to exclude an affidavit attached to plaintiffs' response to defendants' motion to exclude Graham's testimony, and the magistrate judge found and recommended that the affidavit was not proper supplementation of Graham's expert disclosures. Dkt. # 182, at 12-13. Plaintiffs object to the magistrate judge's recommendation concerning the admissibility of Graham's affidavit. Dkt. # 186, at 20-21.

Graham is the president of AeroVox Forensic Investigations & Research, Inc. (AeroVox), and he states that AeroVox is a "multi-disciplinary firm specializing in air crash litigation support and aviation safety consulting." Dkt. # 56-5, at 1. The primary expert services that Graham provides are CVR analysis and flight data visualization. Id. at 2. Graham has a bachelor's degree in German from the University of North Carolina and master of science degree from Winthrop University. Graham took course work in furtherance of a doctorate in speech pathology, but he completed flight training and became a flight instructor before completing his doctorate. Id. In 1991, he was hired by American Eagle as a pilot, and he developed an interest in CVR analysis and accident reconstruction. Id. Graham does not maintain his pilot's license and he has not been

permitted to legally fly without an instructor since 2003. Dkt. # 56-4, at 4. Graham has received a Certificate of Aviation Safety Management from the Embry-Riddle Aeronautical University, and he has completed the Basic Safety School and Aircraft Accident Investigations courses taught by the Air Line Pilots Association. Dkt. # 56-5, at 3.

Graham reached out to plaintiffs' counsel after he learned about the lawsuit, and he was retained by plaintiffs to analyze the CVR. Graham was clear during his deposition testimony that he was not retained as a piloting expert or an electrical expert. Dkt. # 54-4, at 8, 14. On February 1, 2016, Graham produced an expert report (Dkt. # 56-5) but he did not have access to the CVR from the accident when he prepared the report. See Dkt. # 120-5, at 2. Graham opined that the "subject aircraft could not be successfully landed with the front (nose) gear deployed and the main gear retracted," and he stated that there was an unsuccessful attempt to start the second engine before the crash. Dkt. # 56-5, at 6. Although he did not have access to the CVR, he issued a series of opinions generally criticizing the quality of the transcripts of CVRs prepared by the NTSB following any airplane crash, and he claims that it is possible to completely reconstruct the accident by analyzing the CVR in light of other data. Id. at 7-11. In February 2016, the magistrate judge entered a protective order allowing both parties to have access to the CVR audio files. Dkt. # 40. Graham prepared a supplemental expert report after he had an opportunity to examine the CVR audio files, as well as audio recordings of communications between the aircraft and air traffic control (ATC). Dkt. # 120-5, at 3. Graham identified alleged errors in the NTSB's transcript of the CVR, and he criticized the aircraft sound exemplar recordings prepared by Beechcraft used to conduct an audio examination of the CVR audio files. Dkt. # 120, at 27-28. He opined that the pilot exhibited "extraordinary situational awareness, professionalism, checklist use, compliance with FAA

regulations, and excellent knowledge of aircraft systems” Graham claimed to hear “static noise, more likely than not, electrical in origin,” beginning approximately four seconds before the pilot attempted to restart the second engine and continuing until the end of the recording. Id. at 28. Graham further stated that he listened for stress levels in the pilot’s voice and the pilot “exhibited little, if any, psychological stress before, during, and after the emergency.” Id. at 29.

Graham appeared for a deposition on May 12, 2016. Defense counsel asked Graham why he did not bring the necessary equipment to provide a demonstration of his methodology, and Graham responded that defense counsel made an untimely request for Graham to bring his equipment to the deposition.¹⁰ Dkt. # 56-4, at 13. Graham initially stated that he did not own the equipment anymore and that he did not need it. Id. at 13. However, he clarified that he had equipment for two people to listen to the audio files on which he heard certain sounds, but the equipment was “hardwired in my office” and he would present such a demonstration only “on my terms and probably off the record.” Id. Graham testified that he last held a valid pilot’s license in 2003 and he had flown jet aircraft only in a simulator. Id. at 4. Defense counsel asked if Graham was aware that Caves had problems during his pilot training, and Graham responded that he would defer to plaintiffs’ piloting expert on such matters. Id. at 8. Graham testified that he had only heard of one instance in which a plane landed with only the front landing gear locked, and his entire investigation on this issue was a one hour search on the Internet. Id. at 9. Graham did not obtain his own exemplar sound recordings of mechanical sounds from a Premier 390 aircraft and he relied on exemplar sound recordings made by Beechcraft in reaching his opinions. Id. at 10. Graham

¹⁰ The parties do not dispute that defense counsel sent an e-mail to plaintiffs’ counsel the day before Graham’s deposition requesting that Graham bring his equipment to the deposition.

testified that he heard electrical signals and noises coming from the aircraft, but he would defer to plaintiffs' electrical expert to explain the cause of the sounds. Id. at 14, 24. Defense counsel asked Graham to explain how certain spectrogram images supported his opinions as to the cause of certain sounds, and Graham frequently responded "asked and answered" when asked to explain his answers. Id. at 15, 21, 22, 23. Graham opined that Caves was not acting stressed and that the circumstances were "not necessarily" stressful, because Graham described 6,000 or 7,000 feet of altitude as "all the space in the world" to restart the engines. Id. at 26.

In response to defendants' motion to exclude Graham's testimony, Graham drafted an affidavit and stated that he was "qualified to render expert opinions regarding Caves' situational awareness, professionalism, checklist use, compliance with FAA regulations, and knowledge of aircraft systems," and he explained that he performed forensic analysis of the CVR and ATC audio files to reach his opinions. Dkt. # 120-4, at 3. Graham did not offer any new opinions as to Caves' stress level of piloting performance, and the affidavit was apparently drafted to rebut challenges to the methodology he employed. However, he did offer one new opinion that he had "very serious concerns about the conduct of counsel for defendants in [his] deposition" and he did not believe that he was treated appropriately. Id. at 5. Graham attached ".wav files" to his affidavit. These files were produced to defendant on June 29, 2016, and the files appear to be spectrogram images prepared by Graham. Id. at 18-27. Defense counsel sought clarification on what the images were supposed to represent, and plaintiffs' counsel has refused to provide any explanation as to the source of the images or the sounds being analyzed in the spectrograms. Dkt. # 150, at 4; Dkt. # 150-1.

The magistrate judge recommended that the Court exclude Graham's affidavit and the exhibits attached to the affidavit, because the exhibits should have been disclosed when Graham

drafted his supplemental report in April 2016 and the affidavit is an improper attempt to bolster Graham's opinions. Plaintiffs object to the magistrate judge's recommendation and claim that the affidavit was prepared to "consolidate" the opinions stated in Graham's original and supplemental reports in response to defendants' motion to exclude Graham's testimony. Dkt. # 186, at 20-21. Plaintiffs do not object to the magistrate judge's recommendation that the ".wav files" be excluded. Id. at 5. The Court agrees with the magistrate judge that Graham's affidavit is not proper supplementation under Rule 26. The affidavit is an attempt to bolster the basis for certain opinions stated in Graham's original and supplemental reports. Graham could have explained his methodology in greater detail during his deposition, but he refused to answer questions about his methodology or timely produce supporting documentation. The additional information contained in the affidavit about Graham's methodology was available to him when he drafted his initial and supplemental expert reports, and the Court finds that the affidavit (Dkt. # 120-4) should be excluded.

Plaintiffs object to the magistrate judge's recommendation to exclude Graham's opinions on piloting and electrical issues and the magistrate judge's recommendation that plaintiffs make Graham available for a supplemental deposition at their own expense. Dkt. # 193. Plaintiffs do not object to the magistrate judge's recommendation that Graham be precluded from testifying that a plane could not be landed with only the nose landing gear locked into place. Id. at 2-3. Defendants have not filed an objection to the report and recommendation or a response to plaintiffs' objection.¹¹

¹¹ The Court has independently reviewed defendants' motion to exclude Graham's testimony and associated briefing, and the Court accepts the magistrate judge's recommendations to exclude Graham's opinion as to the landing gear and his recommendation that Graham's criticism of sound exemplars do not render his testimony wholly inadmissible. See Dkt. # 190, at 7-8, 12-14. The parties did not object to the magistrate judge's report and recommendation as to these issues.

The Court will initially consider the magistrate judge's recommendation that Graham be permitted to testify that he heard "static," but that he should be precluded from offering an opinion that the static was an "electrical noise" or evidence of an electrical defect. Dkt. # 190, at 8. Graham testified in his deposition that he heard electrical signals or noise but he could not identify the source of the sound, and he deferred to plaintiffs' electrical expert to determine the origin of the sound. Plaintiffs object that Graham should be permitted to testify that the sound is "electrical noise," as opposed to acoustic noise. Dkt. # 193, at 3. However, Graham admitted that he is not an electrical expert and he should not be permitted to describe the static he heard as "electrical noise." He may testify that he heard static on the CVR, but if he is permitted to describe the static as "electrical noise" he will be implying that there was an electrical defect occurring that contributed to the crash. He admits that electrical issues are outside of his expertise and he may not testify that the static is electrical in origin.

Plaintiffs object to the magistrate judge's recommendation that Graham be prohibited from testifying as to the lack of stress in Caves' voice "before, during, and after the emergency." Dkt. # 193, at 8-9. The magistrate judge noted that the CVR stopped working about two minutes after the engines were shut down and there are at least six minutes before the crash that were not recorded on the CVR. Even if the complete CVR were available, Graham did not limit his opinions to voice stress and he intends to offer an opinion that Caves exhibited "extraordinary situational awareness, professionalism, checklist use, compliance with FAA regulations, and excellent knowledge of aircraft systems." Dkt. # 120-5, at 27. It would be misleading to allow Graham to testify that Caves was calm "before, during, and after" the engines were shut off when he lacks a reliable basis to offer such an opinion. Graham also lacks any basis to know whether Caves acted appropriately as a pilot,

and he acknowledged during his deposition that he was not expressing any opinions in this case on piloting issues. Dkt. # 56-4, at 8. The Court accepts the magistrate judge's recommendation to exclude Graham's opinion as to Caves' voice stress.

Plaintiffs object to the magistrate judge's recommendation that they make Graham available for a supplemental deposition, and that they pay defendants' travel costs and any costs charged by Graham for the deposition. Dkt. # 193, at 6 n.2. Plaintiffs claim that defendants waited until one day before Graham's deposition to request a demonstration and the filtered audio files created by Graham, and they state that defendants are already in possession of the CVR and ATC audio files. Id. at 5. The magistrate judge found and recommended that Graham failed to cooperate during discovery due to his failure to timely supplement his expert disclosures with enhanced or filtered audio files that he used to reach his opinions as to what sounds he identified, such as the movement of the thrust lever, on the audio files. Dkt. # 190, at 9. The magistrate judge explained that the spectrograms produced by Graham by themselves do not assist defendants with determining how Graham correlated sounds with actions taken by the pilot, and defendants were not required to file a motion for production of documents to obtain documents that Graham was obligated to disclose under Rule 26. The Court has reviewed plaintiffs' objection and they largely ignore the magistrate judge's actual recommendation and the basis for that recommendation. Instead, plaintiffs focus on defendants' failure to file a motion for production and defendants' request one day before Graham's deposition for a demonstration of his methodology.¹² Dkt. # 193, at 5-6. The Court agrees with the

¹² Plaintiffs repeatedly argue that defendants requested a demonstration just one day before Graham's deposition. The timing of defendants' request seems irrelevant in light of Graham's statement that he would provide a demonstration "only . . . on my terms and probably off the record." Dkt. # 56-4, at 13.

magistrate judge that Graham's failure to produce the filtered audio files he used to reach his opinion is governed by Rule 26, and it was unnecessary for defendants to file a motion to compel. Graham acknowledged in his deposition that the spectrograms do not independently show how he reached his opinions, and he could not adequately explain by simply looking at spectrogram images how he determined that the pilot was manipulating the thrust lever. Dkt. # 56-4, at 16. Graham should have come to his deposition prepared to fully explain the basis for his opinions, and the magistrate judge's recommendation for plaintiffs' to make Graham available for a supplemental deposition and for plaintiffs to bear the costs of that supplemental deposition is an appropriate remedy for Graham's failure to abide by the expert disclosure requirements of Rule 26. The Court accepts the magistrate judge's recommendation that plaintiffs make Graham available for a supplemental deposition and that plaintiffs pay defendants' travel costs and Graham's fees.

E.

The magistrate judge recommends that the Court exclude much of the proposed testimony of plaintiffs' piloting expert, Michael Haider.¹³ Before considering the admissibility of Haider's testimony under Daubert, the magistrate judge noted that there is a substantial issue as to whether Haider actually "prepared" his expert report. Haider admitted during his deposition that plaintiffs' counsel actually drafted the expert report signed by Haider and that he had minimal involvement in reaching the opinions expressed in the report. However, this was not expressly raised by defendants as a reason to exclude Haider's testimony and plaintiffs were not compelled to respond to this issue. The magistrate judge did not formally make a recommendation regarding the origin of Haider's

¹³ The magistrate judge filed an amended report and recommendation (Dkt. # 191) as to defendants' motion to exclude Haider's testimony, and the magistrate judge's original report and recommendation (Dkt. # 189) is moot.

report and its compliance with Rule 26. The magistrate judge did recommend that Haider be permitted to testify as to the following four topics only:

- First, if an aircraft is functioning properly, a pilot should be able to recover from the loss of both engines in flight by following a prescribed sequence. Aircraft are designed and manufactured in a manner that allows the pilot to restart both engines in the event they shut down simultaneously in flight. [Dkt. No. 60-7, p. 5]
- Second, that pilot Caves properly followed the [South Bend airport's] Tower instructions when they directed him to do a flyaround upon observing that his main landing gear did not deploy. [*Id.*, p.6].
- Third, that pilots are unable to land when only the nose landing gear is deployed and the main landing gear remains retracted [*Id.*, p.7].
- Fourth, a pilot would be unable to safely land a plane if it had a defective landing gear that did not fully deploy or certain specific electrical and manufacturing defects. [*Id.*, at p. 6-7]

Dkt. # 191, at 33-34.

Plaintiffs object to the magistrate judge's report and recommendation, but they completely ignore the magistrate judge's lengthy discussion concerning the origin of Haider's expert report. Dkt. # 193. Defendants have filed a response to plaintiffs' objection and they argue that the Court should inquire into the circumstances behind the drafting of Haider's expert report before considering the specific objections raised by plaintiffs. The Court has reviewed the briefing on defendants' motion to exclude Haider's testimony (Dkt. ## 60, 118, 140), the magistrate judge's report and recommendation (Dkt. # 191), plaintiff's objection to the report and recommendation, and defendant's response to plaintiff's objection, and finds that the Court must preliminarily assess whether Haider's expert report was drafted in compliance with Rule 26. Under Rule 26, a written report must be "prepared and signed" by an expert. Haider admitted in his deposition that he did not actually write his expert report that was provided to defendants on February 1, 2016, and the

report was actually written by plaintiffs' counsel. Dkt. # 60-4, at 10. Haider also admits that he did not receive any materials from plaintiffs' counsel until January 30, 2016, and he "reviewed" but did not "read" those materials before he signed the report prepared by plaintiffs' counsel. Id. at 5. This issue was raised in defendants' motion to exclude Haider's testimony (Dkt. # 60), defendants' reply (Dkt. # 140), the magistrate judge's report and recommendation (Dkt. # 191), and defendants' response to plaintiffs' objection (Dkt. # 194), and plaintiffs have failed to provide any response on the issue of the authorship of Haider's expert report. The magistrate judge declined to make a recommendation on this issue because it was not directly raised by defendants as a basis to exclude Haider's testimony, but he did provide a thorough discussion of the applicable law and the facts and plaintiffs should have provided a meaningful response. The Court cannot assess the admissibility of Haider's testimony without knowing whether he actually considered evidentiary materials, formed his own opinions, and drafted his own report in compliance with Rule 26, and plaintiffs are directed to file a brief detailing their communications with Haider before and during the preparation of his expert report and plaintiffs' counsel's role in the drafting of Haider's report.¹⁴ Plaintiffs shall also submit copies of all communications between Haider and plaintiffs' counsel leading up to the signing of Haider's report, and plaintiffs' counsel shall also submit copies of all draft experts reports and identify who prepared the report. Plaintiffs may file the brief and supporting documentation under seal if it is necessary to preserve attorney/client privilege.

¹⁴ The Court notes that Haider submitted a revised report (Dkt. # 60-7) in April 2016 and an affidavit in response to defendants' motion to exclude Haider's testimony. However, if Haider's initial report was not prepared in compliance with Rule 26, he will not have made a timely disclosure of his proposed expert testimony and it is unclear if Rule 26 would allow an expert to supplement his opinions when he did not timely file an original expert report.

IT IS THEREFORE ORDERED that the Report and Recommendation (Dkt. ## 182, 183) is **accepted**, and Defendants' Motion to Strike Improper "Supplementation" by Plaintiffs' Experts (Dkt. # 150) is **granted in part**, and the affidavits of Bloomfield, Sommer, and Graham will not be considered in ruling on defendants' Daubert motions. The motion is under advisement as to defendants' request to exclude Haider's affidavit.

IT IS FURTHER ORDERED that the Report and Recommendation (Dkt. # 195) is **accepted**, and Defendants' Motion to Limit and/or Exclude the Testimony of John Bloomfield (Dkt. # 52) is **granted in part** and **denied in part** as stated in the Report and Recommendation (Dkt. # 195).

IT IS FURTHER ORDERED that the Report and Recommendation (Dkt. # 196) is **accepted**, and Defendants' Motion to Limit and/or Exclude the Testimony of Don and Colin Sommer (Dkt. # 57) is **granted in part** and **denied in part** as stated in the Report and Recommendation (Dkt. # 196).

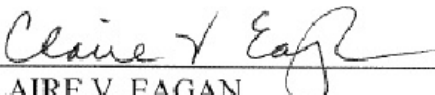
IT IS FURTHER ORDERED that the Report and Recommendation (Dkt. # 190) is **accepted**, and Defendants' Motion to Exclude and/or Limit the Testimony of Frank Graham (Dkt. # 56) is **granted in part** and **denied in part** as stated in the Report and Recommendation (Dkt. # 190).

IT IS FURTHER ORDERED that plaintiffs shall file a supplemental brief no later than **February 10, 2017** explaining who drafted Haider's expert report and what, if any, information Haider actually reviewed before signing the report. Plaintiff shall submit copies of all correspondence, e-mails, and other communications between Haider and plaintiffs' counsel from on or before February 1, 2016. Plaintiffs shall also submit copies of any drafts of Haider's initial

expert report and identify who prepared the expert report. Plaintiffs' brief and supporting documentation may be filed under seal if it necessary to preserve attorney/client privilege.

IT IS FURTHER ORDERED that the magistrate judge's Report and Recommendation (Dkt. # 189) as to defendant's motion to exclude Haider's testimony is **moot** in light of the filing of an Amended Report and Recommendation (Dkt. # 191), which remains under advisement.

DATED this 3rd day of February, 2017.



CLAIRE V. EAGAN
UNITED STATES DISTRICT JUDGE